

**METHODS AND APPARATUS FOR RECOGNIZING AND REACTING TO  
DENIAL OF SERVICE ATTACKS ON A COMPUTERIZED NETWORK**

**Abstract of the Invention**

The invention refers to a procedure for recognizing and refusing attacks on server systems of network service providers and operators by means of an electronic intermediary device (4) installed on a computer network. This electronic intermediary device operates a computer program as well as a data carrier to realize the advantages of the present invention. In addition, the present invention applies to any computer system connected to a network such as Internet (6), an intranet, a virtual private network and the like, regardless whether such network contains just one computer or many computers configured as a server computer (2) or as a client computer and also applies to a computer program product containing computer codes for recognizing and refusing attacks on server systems, and provides:

- defense against DoS and DDoS attacks (flood attacks)
- link level security,
- examination of valid IP headers,
- examination of the IP packet,
- TCP/IP fingerprint protection,
- blocking of each UDP network packet,
- length restrictions of ICMP packets,
- exclusion of specific external IP addresses,
- packet-level firewall function, and
- protection of reachable services of the target system.

The present invention thus guarantees a high degree of security and protection against DoS and DDoS attacks.

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